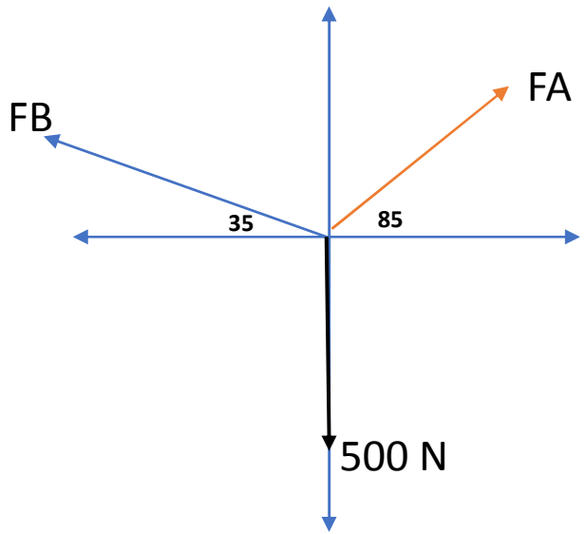


$$f_x = 0 = FA\ Cos\ 85\ - FB\ Cos\ 35 \qquad ecuacion\ 1$$

$$FA = \frac{FB\ Cos\ 35}{Cos\ 85} \qquad ecuacion\ 2$$

$$f_y = 0 = FA\ Sen\ 85 + FB\ Sen\ 35 - 500 \qquad ecuacion\ 3$$

SUSTITUYENDO FA EN LA ECUACION 3

$$0 = \left(\frac{FB\ Cos\ 35}{Cos\ 85}\right) Sen\ 85 + FB\ Sen\ 35 - 500$$

$$\left(\frac{FB\ 0.8191}{0.0871}\right)(0.9961) + FB\ (0.5735) = 500$$

$$9.37\ FB + 0.5735FB\ = 500$$

$$9.9435FB = 500$$

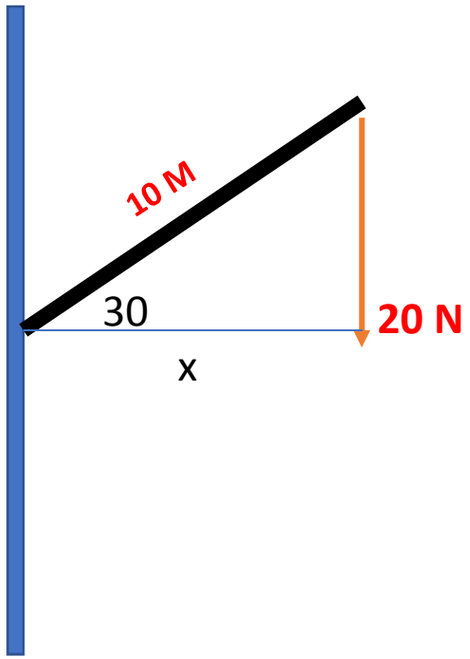
$$FB = 50.28\ N$$

$$FA = \frac{FB\ Cos\ 35}{Cos\ 85} \qquad ecuacion\ 2$$

$$FA = \frac{50.28\ Cos\ 35}{Cos\ 85}$$

$$FA = \ 472.83\ N$$

CALCULAR EL MOMENTO



$Mo = F \cdot d$

$Mo = F \cdot x$

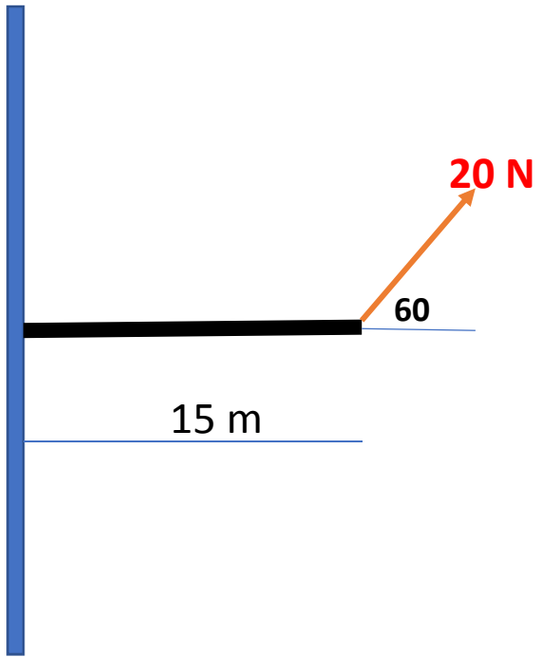
$\cos 30 = x/10$

$10 \cdot \cos 30 = x$

$Mo = (20)(10 \cos 30)$

$Mo = 173.20\ N.m$

CALCULAR EL MOMENTO



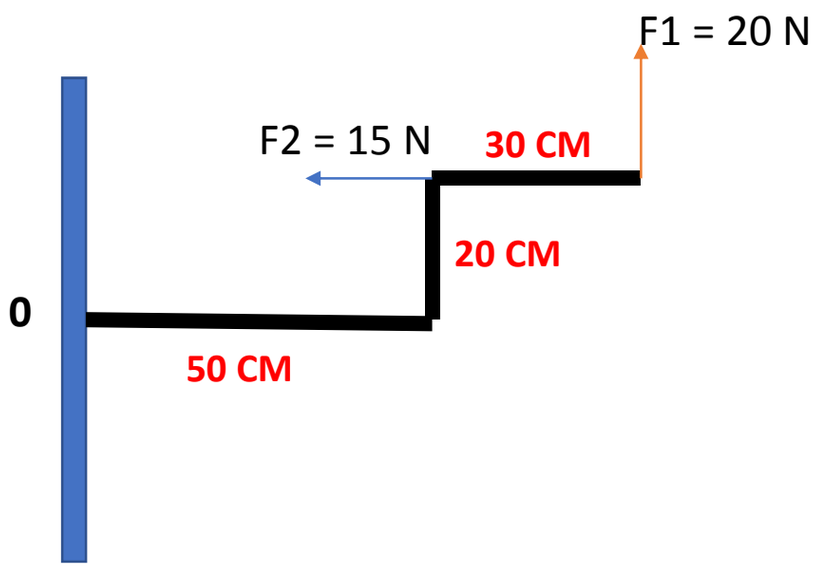
$Mo = F \cdot d$

$Mo = F \operatorname{sen} 60 \cdot d$

$Mo = (20 \operatorname{sen} 60).(15)$

$Mo = 259.80 \text{ N.m}$

CALCULAR EL MOMENTO



CALCULAR EL MOMENTO RESULTANTE

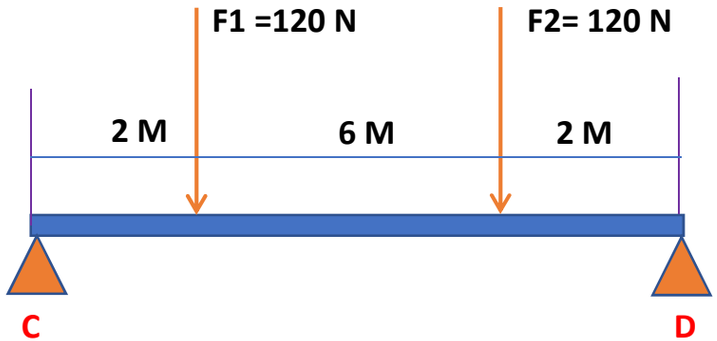
$$\sum Mo = F1(0.50 + 0.30) + F2(0.20)$$

$$\sum Mo = (20)(0.50 + 0.30) + (15)(0.20)$$

$$\sum Mo = (20)(0.80) + (15)(0.20)$$

$$\sum Mo = 16 + 3$$

$$\boldsymbol{\sum Mo = 19\ N.m}$$



$$\Sigma M_C = 0 = (-2)F1 - (8)F2 + 10FD$$

$$\Sigma M_C = 0 = (-2)(120) - (8)(120) + 10FD$$

$$0 = -240 - 960 + 10FD$$

$$1200 = 10FD$$

$$\frac{1200}{10} = FD$$

$$\mathbf{120\ N = FD}$$

$$\Sigma M_D = 0 = (2)F2 + (8)F1 - 10FC$$

$$\Sigma M_D = 0 = (2)(120) + (8)(120) - 10FC$$

$$0 = 240 + 960 - 10FC$$

$$1200 = 10FC$$

$$\frac{1200}{10} = FC$$

$$\mathbf{120\ N = FC}$$